CLAIMS

What is claimed is:

1. A method for the production of a polyketide by fermentation, comprising the steps of growing a culture of a polyketide-producing organism at a pH value conducive to cell growth for a time sufficient to generate the producing culture, lowering the pH of the culture to a value conducive to polyketide product stability, continuing the fermentation until a maximal titer of polyketide is achieved, and optionally extracting the polyketide from the culture.

2. The method of Claim 1 wherein the pH value conducive to cell growth is between about pH 5 and about pH 8.

3. The method of Claim 1 wherein the pH value conducive to cell growth is between about pH 6 and about pH 7.

4. The method of Claim 1 wherein the pH value conducive to cell growth is about pH 6.5.

5. The method of Claim 1 wherein the time sufficient to generate a producing culture is the time required to reach a maximum cell density.

6. The method of Claim 1 wherein the time sufficient to generate a producing culture is the time required for the culture to reach the end of logarithmic growth.

7. The method of Claim 1 wherein the time sufficient to generate a producing culture is the time required to begin production of the polyketide.

8. The method of Claim 1 wherein the pH value conducive to polyketide product stability is between about pH 4 and about pH 7.

9. The method of Claim 1 wherein the pH value conducive to polyketide product stability is between about pH 5 and about pH 6.

10. The method of Claim 1 wherein the pH value conducive to polyketide product stability is about pH 5.5 to about pH 6.0.

11. The method of Claim 1 wherein the polyketide-producing organism is an actinomycete.

12. The method of Claim 11 wherein the actinomycete is *Streptomyces coelicolor, Streptomyces lividans, Streptomyces hygroscopicus,* or *Saccharopolyspora erythraea.*

13. The method of Claim 1 wherein the polyketide-producing organism is an eubacterium.

14. The method of Claim 13 wherein the eubacterium is *Escherichia coli, Pseudomonas fluorescens, Pseudomonas putida, Pseudomonas aeruginosa, Bacillus subtilis,* or *Bacillus cereus.*

15. The method of Claim 1 wherein the polyketide-producing organism is a myxobacterium.

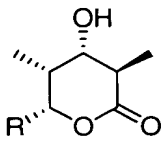
16. The method of Claim 15 wherein the myxobacterium is *Myxococcus xanthus* or *Sorangium cellulosum.*

17. The method of Claim 1 wherein the polyketide-producing organism is a yeast.

18. The method of Claim 17 wherein the yeast is *Saccharomyces cerevesiae.*

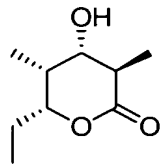
19. The method of Claim 1 wherein the polyketide produced is a triketide lactone.

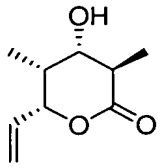
20. The method of Claim 19, wherein the triketide lactone has a structure according to the formula



wherein R is methyl, ethyl, propyl, vinyl, or chloromethyl.

21. The method of Claim 19 wherein the triketide lactone is selected from the group consisting of





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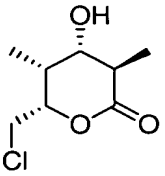

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